



Establishing Minimum Generation Levels and Maximum Ramp Rates for Oversupply Management, Version 2

Effective: 04/02/13

NOTE: The April 5, 2013 submittal due date has been extended to April 10, 2013. Step B.2 has been added to the Version 2 posting (on 4/5/13) due to the minimum generation levels and maximum ramp rate submittal dates inadvertently missing from the Version 2 posted on 4/2/13.

This Business Practice allows generator operators/owners to establish minimum generation levels and maximum ramp rates so that BPA can implement its Oversupply Management Protocol without undue hardship or damage to generating resources.

The Establishing Minimum Generation Levels and Maximum Ramp Rates for Oversupply Management, Version 2 was preceded by Version 1, which was preceded by the Establishing Minimum Generation Levels for Environmental Redispatch, Version 1.

Version 2 was updated to reflect specific changes to BPA's automated process for signaling non-VERs (Variable Energy Resource) to go to their minimum generation level. Version 2 include the following specific changes:

Section A

- Step A.1: Replaced "practicable" with available and added " such as those described in Section 2 of Attachment P."
- Step A.2: Deleted "already"

Section B

- Step B.2: Step was added after the original Version 2 posting on 4/5/13 since the date was inadvertently left out of the original Version 2 posting on 4/2/13
- Step B.3: Added step

Section C

- Step C.1: Deleted step
- Step C.1.a-x: Became C.1-C.1.a-j. Deleted "maximum downward ramp rate and/or a", "drop below while" and "should". Added "may" and "these factors are".
- Step C.2.a-c: Deleted steps
- Step C.2-3: Added steps.

A. Purpose of Establishing Minimum Generation Levels and Maximum Ramp Rates for Oversupply Management

1. Oversupply Management is designed to ensure the Federal Columbia River Power System (FCRPS) is operated consistently with “Clean Water Act” and “Endangered Species Act” obligations, as well as Bonneville Power Administration (BPA)’s obligations under the “Pacific Northwest Electric Power Planning and Conservation Act,” under specific hydro and load conditions, and after all available mitigation measures, such as those described in Section 2 of Attachment P, have been implemented. When these conditions exist, BPA will issue Dispatch Orders to generators and replace scheduled generation in BPA’s Balancing Authority Area (BAA) with Federal hydropower pursuant to Attachment P of BPA’s Open Access Transmission Tariff (OATT).
2. BPA, in coordination with the US Army Corps of Engineers and Bureau of Reclamation, establishes minimum generation levels for Federal Generation to minimize total dissolved gas on a system basis. These levels will be implemented as part of the mitigating measures to ensure Federal generation fully participates in mitigating the system conditions.
3. BPA does not intend for actions taken during an Oversupply event to cause undue hardship or damage to generating resources. To that end, operators/owners of non-**Variable Energy Resource (VER)**¹ resources within BPA’s BAA are encouraged to establish a minimum generation level and a maximum ramp rate for Oversupply Management. This information will be used to determine Dispatch Orders that may be issued during an Oversupply Management event

B. Generators Subject to Establishing Minimum Generation Levels and Maximum Ramp Rates for Oversupply Management

1. A minimum generation level and a maximum ramp rate for Oversupply Management shall be established for all non-VER generators with 3 MW or greater nameplate generating capacity in BPA’s BAA except those generators operating and scheduling output under a Bonneville Transmission Services pseudo tie agreement. If no minimum generation level is established pursuant to section C.2 below, BPA will assume the minimum generation level is zero.

¹An electric generating facility that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator. This includes, for example, wind, solar thermal and photovoltaic, and hydrokinetic generating facilities. This does not include, for example, hydroelectric, biomass, or process steam generating facilities.

2. Minimum generation level and maximum ramp rates shall be properly submitted by April 10, 2013 and then March 31 of each year going forward.
3. There are no minimum generation levels or maximum ramp rates for VERs because VERs do not have reliability factors dictating a lowest operating level.

C. Establishing Minimum Generation Levels and Maximum Ramp Rates for Oversupply Management

1. Non-VER generators that expect to have a need to continue operating during an Oversupply Management event may establish a minimum generation level that they cannot operate below. Reliability factors that may be considered when establishing minimum generation levels are established in Section 8 of Attachment P. These factors are:
 - a. Generation level required for self- or third-party supply of Ancillary Services such as operating reserves, regulating and load following reserves, or for supply of Ancillary Services to another Control Area;
 - b. Generation levels needed for local reactive power support;
 - c. Generation levels that can be achieved within 60 minutes or that allow return to normal operation within 60 minutes;
 - d. Generation levels required for compliance with environmental laws and regulations;
 - e. Minimum stable and safe generation levels;
 - f. Minimum fuel take obligations;
 - g. Maximum 10-minute ramp rates;
 - h. Maximum duration for reduced generation levels; and
 - i. Generation levels and duration for testing requirements after generator maintenance.
 - j. Generation level needed to support plant operations associated with co-generation facilities
2. Non-VER operators/owners of resources within BPA's BAA shall notify BPA of the

minimum generation level via the **Customer Data Entry (CDE)**¹ system that is currently used to submit generation forecasts. Minimum generation values are expected to be submitted as 24 hourly values for each day and may be modified until 20 minutes before the operating hour. If no minimum generation is submitted for the next day, then the 24 hourly values from the current day will be used.

3. Non-VER generators should submit to their Transmission Account Executive the applicable maximum ramp rate and contact information, including a name, email and telephone number, for each generating facilities, no later than April 5, 2013 and then March 31 of each year going forward. Generators may follow their maximum ramp rates when following a **Dispatch Order**² to reduce to their minimum generation

D. Additional Information:

Policy References

- [BPA OATT, Attachment P](#)

Related Business Practices

- Oversupply Management Protocol

Version History

Version 3	04/02/13 [NOTE: The April 5, 2013 submittal date has been extended to April 10, 2013. Step B.2 has been added to the Version 2 posting (on 4/5/13) because the minimum generation levels and maximum ramp rate submittal dates were inadvertently missing from the Version 2 posted on 4/2/13.] Updated to reflect automated processes. Specific changes to Version 2 include:
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¹A Transmission Services access point that allows a customer to obtain information pertaining to its Ancillary Services, Loss Return obligations, portfolio manager, and contract portfolio manager.

²Order or directive from Transmission Services to dispatch, curtail, redispatch, limit output, or shed load. Dispatch Orders may be communicated by various methods including, but not limited to: phone call (e.g. to redispatch generation up or down); electronic signal (e.g. via direct telemetry or private web application to limit generation according to DSO216); or NERC e-Tagging system (e.g. to curtail transmission schedules and the generation using those schedules).

	<p>Section A</p> <ul style="list-style-type: none">• Step A.1: Replaced "practicable" with available and added " such as those described in Section 2 of Attachment P."• Step A.2: Deleted "already" <p>Section B</p> <ul style="list-style-type: none">• Step B.2: Step was added after the original Version 2 posting on 4/5/13 since the date was inadvertently left out of the original Version 2 posting on 4/2/13.• Step B.3: Added step <p>Section C</p> <ul style="list-style-type: none">• Step C.1: Deleted step• Step C.1.a-x: Became C.1-C.1.a-j. Deleted "maximum downward ramp rate and/or a", "drop below while" and "should". Added "may" and "these factors are".• Step C.2.a-c: Deleted steps• Step C.2-3: Added steps.
Version 1	<p>3/31/12 The Establishing Minimum Generation Levels and Maximum Ramp Rates for Oversupply Management, Version 1 was preceded by the Establishing Minimum Generation Levels for Environmental Redispatch, Version 1, now located in the Business Practice archive.</p>